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EXAMINER

PEYTON, DESMOND C

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL CORNWELL and
VLADIMIR DUSAN MILOSAVLJEVIC

Appeal 2015-001998
Application 10/933,887
Technology Center 3700

Before BRETT C. MARTIN, LISA M. GUIJT, and ERIC C. JESCHKE,
Administrative Patent Judges.

JESCHKE, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Michael Cornwell and Vladimir Dusan Milosavljevic (“Appellants”) seek review under 35 U.S.C. § 134(a) of the Examiner’s decision, as set forth in the Final Office Action dated January 30, 2014 (“Final Act.”), rejecting claims 1, 3, 6–12, and 15–20 under 35 U.S.C. § 103(a) as unpatentable over Dean (US 6,070,410, issued June 6, 2000) and Pederson (US 2004/0050056 A1, published Mar. 18, 2004).¹ We have jurisdiction under 35 U.S.C. § 6(b).

¹ Appellants identify Siemens Aktiengesellschaft, of Munich, Germany, as the real party in interest. Br. 2.

We REVERSE.

BACKGROUND

The disclosed subject matter relates “to burners adapted to stabilize engine combustion.” Spec. 1. Claims 1, 11, and 20 are independent. Claim 1 is reproduced below, with emphasis added:

1. A burner for a gas turbine combustor comprising:

a) *a cylindrical main body* having axially opposed upstream and downstream end portions, *the main body having at least one fuel inlet passage and at least one air inlet passage formed therein* which are adapted to respectively supply all fuel and air to a mixing chamber defined in the downstream end portion of the main body, the mixing chamber configured to swirl and mix the fuel and air supplied to the mixing chamber, wherein the fuel and air supplied to the mixing chamber constitute an entirety of fuel and air supplied by the burner to a combustion chamber;

b) a flame holder disposed within the mixing chamber and including a base portion engaged with the main body of the burner and an elongated bluff body; wherein the bluff body includes a tapered upstream section, wherein the tapering is a reduction in diameter in the downstream direction, and a downstream neck section, the neck section includes a radially enlarged tip region that has an outside diameter which is larger than an axially upstream region of the neck section, and the bluff body extends in an axially downstream direction from the base portion through the mixing chamber so as to control the position of a combustion ignition point downstream of the mixing chamber, wherein the fuel and air first

mix in the mixing chamber about the tapered upstream section of the bluff body, and

a quarl device disposed adjacent to the downstream end portion of the cylindrical main body, the quarl device defining an interior recirculation chamber and a burner exit that leads to the combustion chamber, the interior recirculation chamber adapted for receiving combustion gases from the mixing chamber and for recirculating a portion of the combustion gases in an upstream direction so as to aid in stabilizing combustion.

DISCUSSION

The three independent claims—claims 1, 11, and 20—each recite, among other limitations, “a cylindrical main body . . . having at least one fuel inlet passage . . . formed therein.” Br. 11, 13, 15 (Claims App.). For these limitations, the Examiner relies on Dean, stating:

a cylindrical main body (#28, Fig. 1) having axially opposed upstream and downstream end portions, the main body having at least one fuel inlet passage and at least one air inlet passage formed therein which are adapted to respectively supply all fuel and air to a mixing chamber (a downstream portion of #36, col. 3, lines 7–12).

Final Act. 2 (addressing claim 1); *see also id.* at 5–6 (relying on the same findings for claim 11), 7–8 (relying on the same findings for claim 20).

Appellants argue that “the independent claims recite that all of the fuel is supplied through a fuel inlet passage in the main body of the burner” and that, “[i]n contrast, Dean . . . teaches that fuel is supplied through orifices 38a on the outer surface 32a of center body 32.” Br. 8 (citing Dean, col. 3, ll. 1–6). Appellants contend that, in Dean, “[t]he outer surface 38a on

which the orifices 38a are provided is spaced radially from the inner surface of the shroud 30.” *Id.* (citing Dean, col. 2, ll. 64–66).²

The Examiner agrees with Appellants’ statements regarding Dean, but takes the position that, regardless, “[t]he claimed fuel inlet passage does still read on Dean.” Ans. 6 (emphasis omitted). According to the Examiner, “the fuel inlet passage is still located in the main body as shown in Fig. 1 of Dean . . . as broadly and reasonably interpret[ed] without reading the limitations of the specification into the claim.” *Id.* (emphasis omitted).

During examination, claims are given their broadest reasonable interpretation consistent with the specification, reading the claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990). Here, Appellants and the Examiner agree as to the teachings of Dean, but disagree as to the construction of “formed therein” in the limitations at issue. We agree with Appellants that the Examiner has applied an unreasonably broad construction of “formed therein” because the limitations at issue require that the “fuel inlet passage” be *formed in* the structure of the “cylindrical main body” rather than merely *located within* the hollow central portion of the “cylindrical main body” (as proposed by the Examiner and taught by Dean).

The Specification supports this construction, describing fuel inlet passages 56 in Figure 2 as “formed in” main body 50 and showing the hatching denoting main body 50 surrounding exemplary fuel inlet passages 56. Spec. 9, Fig. 2; *see also* 37 C.F.R. § 1.84(h)(3) (2013) (“Hatching must

² We understand Appellants’ statement regarding “outer surface 38a” to refer to centerbody outer surface 32a. *See, e.g.,* Dean, col. 3, ll. 1–6.

be used to indicate section portions of an object The various parts of a cross section of the same item should be hatched in the same manner”).

Because the Examiner has not shown that Dean satisfies the limitations at issue when applying the proper construction of “formed therein,” we do not sustain the rejection of independent claims 1, 11, and 20, and also do not sustain the rejection of claims 3 and 6–10 (which depend from claim 1) or claims 12 and 15–19 (which depend from claim 11).

DECISION

We REVERSE the decision to reject claims 1, 3, 6–12, and 15–20 under 35 U.S.C. § 103(a).

REVERSED